

THURSDAY, SEPTEMBER 14, 1876

## GEORGE SMITH

THE untimely death of Mr. George Smith at the early age of thirty-seven, is a loss that can ill be repaired. Scholars can be reared and trained, but hardly more than once in a century can we expect a genius with the heaven-born gift of divining the meaning of a forgotten language and discovering the clue to an unknown alphabet. The marvellous instinct by which Mr. Smith ascertained the substantial sense of a passage in the Assyrian inscriptions without being always able to give a philological analysis of the words it contained, gave him a good right to the title of "the intellectual picklock," by which he was sometimes called. The pioneer of Assyrian research, and the decipherer of the Cypriote inscriptions, he could be all the less spared at the present moment, when a key is needed to the reading of those Hamathite hieroglyphics to which the last discoveries he was destined to make have given such an unexpected importance.

Mr. Smith was born of poor parents, and his school-education was consequently broken off at the age of fifteen, when he was apprenticed to Messrs. Bradbury and Evans to learn the art of engraving. While in this employment he often stole half the time allowed for dinner for visits to the British Museum, and saved his earnings to buy the works of the leading writers on Assyrian subjects. Sir Henry Rawlinson was struck with the young man's intelligence and enthusiasm, and after furnishing him with various casts and squeezes, through which Mr. Smith was led to make his first discovery (the date of the payment of tribute by Jehu to Shalmaneser (he proposed to the trustees of the Museum that Mr. Smith should be associated with himself in the preparation of the third volume of the "Cuneiform Inscriptions of Western Asia." This was in 1867, and from this year Mr. Smith entered upon his official life at the Museum and definitely devoted himself to the study of the Assyrian monuments. The first fruits of his labours were the discovery of two inscriptions, one fixing the date of a total eclipse of the sun in the month Sivan or May, B.C. 763, and the other the date of an invasion of Babylonia by the Elamites in B.C. 2280, and a series of articles in the *Zeitschrift für Ägyptische Sprache*, which threw a flood of light upon later Assyrian history and the political relations between Assyria and Egypt.

In 1871 he published the "Annals of Assur-bani-pal," or Sardanapalus, transliterated and translated, a work which involved immense labour in the preparation of the text and the examination of variant readings. This was followed by an excellent little pamphlet on the chronology of Sennacherib's reign and a list of the characters of the Assyrian Syllabary. About the same time he contributed to the newly-founded Society of Biblical Archæology a very valuable paper on "The Early History of Babylonia" (since republished in the "Records of the Past"), as well as an account of his decipherment of the Cypriote inscriptions which had hitherto been such a stumbling-block and puzzle to scholars. The Cypriote Syllabary as determined by him has been the basis of the later labours of Birch, Brandis, Siegmund, Deecke, Schmidt, and Hall.

It was in 1872, however, that Mr. Smith made the discovery which has caused his name to be a household word in England. His translation of the "Chaldean Account of the Deluge" was read before the Society of Biblical Archæology on the 3rd of December, and in the following January he was sent to excavate on the site of Nineveh by the proprietors of the *Daily Telegraph*. After unearthing the missing fragment of the Deluge story, he returned to England with a large and important collection of objects and inscriptions. Among these were fragments which recorded the succession and duration of the Babylonian dynasties, a paper on which was contributed by the discoverer to the Society of Biblical Archæology. It was in connection with these chronological researches that Mr. Smith's invaluable volume on the "Assyrian Eponym Canon" was written for Messrs. Bagster in 1875. Shortly afterwards he again left England to continue his excavations at Kouyunjik for the Trustees of the British Museum, and in spite of the difficulties and annoyances thrown in his way by the Turks, he succeeded in bringing home a large number of fragmentary tablets, many of them belonging to the great Solar Epic in twelve books, of which the episode of the Deluge forms the eleventh lay. An account of his travels and researches was given in his "Assyrian Discoveries," published at the beginning of 1875. The remainder of the year was occupied in piecing together and translating a number of fragments of the highest importance, relating to the Creation, the Fall, the Tower of Babel, &c. The results of these labours were embodied in his book, "The Chaldean Account of Genesis."

The great value of these discoveries induced the Trustees of the Museum to despatch Mr. Smith on another expedition in order to excavate the remainder of Assur-bani-pal's library at Kouyunjik, and so complete the collection of tablets in the British Museum. Mr. Smith accordingly went to Constantinople last October, and after some trouble succeeded in obtaining a firman for excavating. He set out for his last and fatal journey to the East in March, taking with him Dr. Eneberg, a Finnic Assyriologue. While detained at Aleppo on account of the plague, he explored the banks of the Euphrates from the Balis northward, and at Yerabolus discovered the ancient Hittite capital, Carchemish—a discovery which bids fair to rival in importance that of Nineveh itself. After visiting Devi, or Thapsakus, and other places, he made his way to Bagdad, where he procured between two and three thousand tablets discovered by some Arabs in an ancient Babylonian library near Hillah. From Bagdad he went to Kouyunjik, and found, to his intense disappointment, that owing to the troubled state of the country it was impossible to excavate. Meanwhile Dr. Eneberg had died, and Mr. Smith, worn out by fatigue and anxiety, broke down at Ikisji, a small village about sixty miles north-east of Aleppo. Here he was found by Mr. Parsons, and Mrs. Skene, the consul's wife at Aleppo, and a medical man having been sent for, conveyed him by easy stages to Aleppo, where he died August 19th. He has left behind him the MS. of a "History of Babylonia," intended to be a companion volume to his "History of Assyria," published by the S.P.C.K. last year.

Mr. Smith's obliging kindness was only equalled by his modesty. Shortly after his return from his first expedition

he was showing the present writer some of the tablets he had found, when a lady and gentleman came up and asked various questions, to which he replied with his usual courtesy. They thanked him and were turning away when, hearing his name pronounced, the lady asked: "Are you Mr. Smith?" On his replying "That is my name, madam," she exclaimed, "What, not the great Mr. Smith!" and then, like the gentleman with her, insisted upon having "the honour" of shaking hands with the distinguished Assyriologue, while the latter crimsoned to the roots of his hair. His loss is an irreparable one to Assyriology, even beyond his powers as a decipherer, as his memory enabled him to remember the place and nature of each of the myriad clay fragments now in the Museum, while his keenness of vision made his copies of the minute characters of the tablets exceptionally trustworthy. It is distressing to think that he leaves behind him a wife and large family of small children, the youngest of whom was born but a short time before his last departure from England.

A. H. SAYCE

### THE NORWEGIAN TOURISTS' ASSOCIATION

*Year-book of the Norwegian Tourists' Association for 1875 (Den Norske Turistforenings Årbog for 1875.)*  
(Kristiania: Cammermeyer).

THIS year-book, which is the eighth of a series issued by the Association, contains some information likely to be useful to those who intend to visit the fjelds of Norway, and two papers at least of scientific interest by Mr. A. Helland. The indefatigable mountain-climbers, Mr. E. Mohn and Mr. Wm. Cecil Slingsby, have each contributed a paper on their adventures during short excursions made on the Jotunheim-fjeld ("Adventures on the Fjelds," and "An English Lady in Jotunheimer"). These accounts, written in a lively, pleasant style (the last in English), will be read with interest by tourists who are in search of new fields of exploration. In the paper of O. A. C. "Bagatelles from a Journey in the Nordland," the reader will find some fine description of nature and life in the northern parts of the Scandinavian peninsula.

The paper by Mr. A. Helland, "On 'Cirques' and Sack-valleys,"<sup>1</sup> and on their importance in the theories of the Formation of Valleys,<sup>2</sup> will certainly be perused with profit by the geologist.<sup>3</sup> After a description of cirques and sack-valleys, and of the forms intermediate between the two, Mr. Helland remarks that the openings of the cirques are generally directed towards the north. This law, he says, is well illustrated by a large scale map of the Jotunfjelds, constructed by Capt. Hertzberg; and from a table, in which the author gives the directions of thirty-seven cirques of different magnitudes (from 0.3 to 4 kilometres long), it is seen that twenty-five cirques are directed towards points lying between north-west and north-east, eleven between north-west and south-west or north-east and south-east, and one points towards the south-east. Certainly in other localities there are cirques

pointing even due south, but these are only exceptions to the general rule. Besides, when a valley has a west-east direction, or when the slope of a fjeld follows this direction, it is on the slope which faces to the north that semi-circular indentations or little cirques are found.

A second law which may be established for the cirques of the parts of Norway explored by the author, is, that the largest are generally found in the neighbourhood of the highest peaks of the country.

As to the origin of the cirques, Mr. Helland refers to a note of Mr. Lorange, which he gives *in extenso*, and in which the author, though not a geologist by profession, makes some very valuable observations on the cirques, on their close relations with glaciers, existing and extinct, and with old moraines. His notes on the transport of blocks from the interior of the cirques, and on the directions of their transit, show how important was the part played by ice in the excavation or in the clearing of cirques. The conclusions arrived at by Mr. Lorange, and supported by Mr. Helland are, that cirques, as well as sack-valleys, were necessarily excavated with the aid of glacier-ice. But the ice did not act as a direct excavating agent; it only cleared away the *débris* which had accumulated in the cirques, the rock being disintegrated by the incessant intermittence of the freezing and thawing of water in the fissures. Doing little to excavate the valley, the glacier acts as a powerful means of transport of the disintegrated parts of the rock, where such a means is wanting, as on the tops of mountains, there the *débris* accumulates and protects the underlying rock from further disintegration. The tarns, so numerous at the bottoms of cirques and of sack-valleys, were formed, the author supposes, by the same process, the rocks being disintegrated when the water freezes under the glacier during winter. This theory of the transport power of glaciers is supported by some authorities in England, but we think that it meets with two great difficulties. It is in contradiction with the well-known fact, that in the valleys of the Alps the ice has acted as a sheet, protecting the rock from disintegration; that the disintegration proceeds far more rapidly above the glacier than beneath it. And secondly, the theory does not explain why the disintegration should go on so rapidly in the head of the valley and so slowly in its lower parts (the differences of height and climate being trifling), as to produce a very great semi-circular enlargement at the head of the valley. We believe, therefore, that so long as it is not admitted that a glacier, charged on its lower surface with a mass of *débris*, is really a mighty excavating agent, we cannot come to a satisfactory explanation of the cirques. The observation of Mr. Helland that the openings of the cirques are generally directed to the north, *i.e.* to the part of horizon from which came the ice in many instances, suggests a question which we will simply refer to without entering into details. Were not some cirques, or a part of the enlargements of some cirques, excavated by the ice during its ascending motion from the valley on the fjeld? Those who accept the molecular motion of glacier-ice, *i.e.* its perfect plasticity or viscosity, with all the consequences of this theory, certainly will not find the question extravagant; they will remember that the motion of ice *up* the valleys, and even a motion on slopes from 20° to 63° is an established fact.

<sup>1</sup> "Om botner og sækkedal, samt deres betydning for teorier om dalens dannelse." A "botn," a semi-circular indentation in the mass of the field, is what is called in the Alps a "cirque." A "sækkedal," *i.e.*, a valley, the head of which presents a semi-circular enlargement, or a "cirque," a valley which ends in a *cul-de-sac*, might be called a "sack-valley," a literal translation of the word "sækkedal."

<sup>2</sup> This paper is reprinted from the valuable periodical, *Geologiska Föreningens i Stockholm Förhandlingar*.